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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,097	08/31/2000	Abdulhaq E. Alkhalidl	DmC.007	5696

7590 02/19/2003

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EXAMINER

NORTON, NADINE GEORGIANNA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 02/19/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

AG-5

Office Action Summary

Application No.

09/654,097

Applicant(s)

ALKHALIDL, ABDULHAQ E.

Examiner

Nadine Norton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 11-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 1-10 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that claim 11 requires supercritical conditions. This is not found persuasive because supercritical fluid mixing limitations in claims 11 are an intended use of the apparatus which does not affect the physical structure of the apparatus.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

Claim 7 is objected to because of the following informalities:

In claim 7, it appears as if the term "id" should be changed to "is" .

Appropriate correction is required.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Applicant's settling limitation in claim 1 appears to lack antecedent basis in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6-10 are rejected under 35 U.S.C. 102(b) as anticipated by Bereke et al.(4,806,228).

Applicant is claiming a method of processing a fluid comprising mixing said fluid to be processed with a supercritical fluid to dissolve at least one component in the fluid to be processed; applying thermal energy to said fluid; allowing undissolved components to settle and separating said dissolved components from said supercritical fluid.

The reference of Bereke et al.(4,806,228) discloses a process involving extracting a coal tar pitch with a supercritical fluid such as an aliphatic or olefinic hydrocarbon containing 2 to 5 carbon atoms. See column 2, lines 10-15 and 21-25. The extraction agent may also contain a modifier in the form of an entrainer. See column 2, lines 20-25. The extraction mixture is subjected to separation steps to remove the supercritical gas, which is recycled for further use. See column 2, lines 15-20. Sedimentation (e.g. settling) of the solids occurs. See column 3, lines 7-12. The pitch can be heated prior to contacting it with the extracting agent. See column 4, lines 43-48. The process accomplishes the extraction of pitch. See column 2, lines 50-55.

The reference of Bereke et al.(4,806,228) succeeds at disclosing a process involving applicant's claimed supercritical fluid, mixing, addition of thermal energy (e.g. heating) and separation steps.

Applicant's process is anticipated by the reference of Bereke et al.(4,806,228) because it discloses essentially the same process steps claimed by applicant.

Claim Rejections - 35 USC § 103

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereke et al.(4,806,228).

See teachings of Bereke et al.(4,806,228) above.

A difference is noted between the reference of Bereke et al.(4,806,228) and applicant's claimed invention. The reference is silent regarding the method of mixing the fluid containing pitch with the supercritical gas.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ any conventional known means of mixing to produce the desired extraction mixture, including the specific means defined in applicant's dependent claims, because the reference does not restrict the type of mixing employed. One of ordinary skill would be motivated to use any known available mixing means, including the ones recited in applicant's dependent claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 8 30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

February 8, 2003

NADINE G. NORTON
PRIMARY EXAMINER

Nadine Norton